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ABSTRACT

Differences between black and white students' college performance were examined, along with the effects of institutional characteristics and relationships with faculty. A sample of 2,218 black and 1,876 white students from 30 universities in 10 southern and southern border states were studied. The faculty sample consisted of 280 black and 426 white faculty. White students were found to have both faster progression rates and higher grade point averages (GPA) than did black students. Significant predictors of progression rates for black students included: age, distance of residence from the college, faculty teaching style, high school GPA, whether the student was in a predominantly black or white college, marital status, and academic motivation. Significant predictors of college GPA included: academic motivation, high school GPA, academic integration at the institution, commitment to the institution, faculty contact with students outside the classroom, and Scholastic Aptitude Test scores. Comparisons are made of black and white students on all the student characteristics. Attitudinal/behavioral characteristics of the faculty of black students are also compared to the characteristics of faculty of white students. (SW)

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RACIAL SIMILARITIES AND DIFFERENCES IN THE PREDICTORS OF STUDENTS' COLLEGE ACHIEVEMENT

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Observers of the higher education desegregation process have noticed a declining growth rate of black students attending college in the 1980's compared to the late 1960's and 1970's. Clearly the great majority of emphasis in higher education desegregation has been placed upon increasing access for minority students and increasing the numbers of minority faculty and administrators. These are important elements of the desegregation process, but too little attention has been given to the racial equality of students' performance which represents a qualitative goal in desegregating higher education.

This paper focuses upon some qualitative aspects of higher education desegregation by examining the differences between black and white students' college performance and the student faculty and institutional characteristics that affect their performance. The three purposes to be served by these analyses are (1) to determine if there are differences in the college performance of black and white college students; (2) to find the differences and similarities in the predictors of black and white students' performance in college; and (3) to determine if there are significant differences between black and white students on the significant predictor variables.

Many factors have been found through research to contribute to college students performance academic achievement. Some researchers have found that the major contributors are the characteristics students gain in their pre-college preparation, while others consider the college experience as measured by the attributes of a university to be the determining factors. Most, however, agree that both pre-college and in-college experiences, along with students' personal characteristics operate in concert to produce various levels of

performance. One matter that is unresolved is whether the same variables are significant predictors of both black and white students academic achievement, or whether there are racial characteristic differences in students that result in differencer in their college academic achievement.

A review of the literature reveals a varied set of findings. In a study comparing black and white students' grades and attrition rates at the University of Georgia, White and Suddick (1981) found no significant racial differences in students' grade point average nor their attrition rates, and they attribute this to the selective admissions criteria of that University. This suggest that the academic selectivity of a university can produce homogenerity in students performance that eliminates the effects of racial differences in the students college experiences. Similarly, Ayers and Bennett (1983) using a sample of fifteen North Carolina universities found several quantitative factors such as students SAT scores, selectivity of the university, number of high quality faculty, and faculty salaries to be highly correlated with students performance on the National Teachers Examination. They too report no discernable racial differences.

Earlier studies represent more contrasting findings. Many found no differences in the actual predictors of college performance (Scott 1938; Stanley and Porter 1962; McKelpin 1965; and Munday 1965) while others conclude that biographical characteristics, motivational characteristics, social and academic support characteristics and high school grade have a greater affect upon the performance black students

than white students (Anastasi 1960; Clark and Plotkin 1964; Aiken 1964; Sedleck and Brooks 1973; and Beasley 1974).

This study attempts to explain whether there are racial differences in the performance of black and white college students; to determine ifthe significant predictors are racially distinguishable; and to examine the actual differences in the significant variables to further explain racial differences. This study uses a greater number of student and faculty and institutional variables than the previous studies, including student/environmental factors and student/faculty interactions which in studies not focusing upon race have been found to be significant (Astin 1975; Tinto 1975; Pascarella and Terrinzini 1980).

The Dependent Variables

Students' college progression rate is defined as the average number of credit hours students successfully complete per term of enrollment. This variable is obtained by dividing students total credit hours completed by the number of terms enrolled in college. Both figures are self-reported on the Student Opinion Survey (SOS).

Students' college grade point average is the cumulative grade point average. The cumulative college grade point average is self-reported on the Student Opinion Survey.

The Independent Variables

The following personal, demographic, academic, and student and faculty attitudinal/behavioral characteristics are the independent variables in this study:

Composite SAT score

Socioeconomic status

Sex

Age

High school grade point average

Marital status

Type of high school attended

Number of hours spent working on a job

Where lived while in school

Racial minority status

Whether a transfer student

Number of miles between college and permanent home

Fit between racial composition of high school and college

Fit between racial composition of home neighborhood and racial composition of college

Highest expected degree

Whether works while in college

Academic integration scale

Commitment to institution scale

Academic motivation scale

Feelings of discrimination scale

Social integration scale

Interfering problems scale

Faculty Characteristics

Significant contact with students outside the classroom scale

Satisfaction with the institution scale

Conservative teaching styles

Feelings that the institution is discriminatory scale

Concern for student development scale

Institutional Characteristics

Total enrollment

The seven attitudinal/behavioral characteristics - academic integration, commitment to the institution, academic motivation,feelings of discrimination, social integration and interfering problems are factor scales which were produced through a principal factor analysis with iteration of seventy-seven items from the Student Opinon Survey. The five faculty factors were produced using the same factor analysis procedure on the Faculty Opinion Survey.

Description of the Sample

The students and faculty from thirty universities in ten southern and southern border states are included in this study.The thirty universities include six each of the following five types: (1) large predominantly white public (flagship), (2) black public, (3) regional predominantly white public, (4) white large private, and (5) black private.

The sample size in this study is 4094 consisting of 2218 black students and 1876 white students. This sample was selected randomly, stratified by race, from thirty universities in ten southern and mid-atlantic states. The sampling procedure required the selection of 150 white students and 15- black students, fifty each of sophomores, juniors, and seniors from each university. In cases where universities did not have the 50 students of the minority racial group in its enrollment, the entire population of students from that class was included in the sample. This procedure yielded a total of 7,428

students. The 4094 represent a Student Opinion Survey return rate of 65.8%.

The faculty sample is 706 consisting of 280 black faculty and 426 white faculty. The faculty sample was also randomly selected from the thirty universities. Thirty faculty members were selected from each university with twenty being in the racial majority on campuses and ten in the minority. This procedure produced an original sample size of 900 faculty. The 706 who completed and returned the Faculty Opinion Survey (FOS) represents a response rate of 79%.

In order to control for oversampling students of minority race, the following weighting is used to weight individual responses of students:

$$\text{weight} = \frac{\%\text{ of students at the institution who are of respondent's race}}{\%\text{ of institutional sample who are of respondent's race}} \quad \frac{\%\text{ of total students population who attend respondents institution}}{\%\text{of total sample who attend respondent's institution}}$$

This computerized weighting procedure does not affect degrees of freedom; therefore, tests sof significance are not affected by the weighting scheme, because they are based upon the actual number of cases rather than the weighted number.

Data Analyses and Methodology

Four sets of analyses are utilized in this study. First, comparisons are made of black and white students' overall progression rates and college grade point averages using Student's T-test to test

for significant differences. Second, multiple regression analyses are utilized to illustrate the significant predictors of students' progression rates and college grade point averages. Separate regression analyses are performed for black and white students and both models include all twenty-nine independent variables. In these regression analyses, the entire set of predictor variables are entered into the analysess concurrently; therefore, the partial regression coefficients and t-values represent the independent contribution of each variable with all the other main effects statistically controlled. Third, chi-square analyses are utilized to compare black and white students on the categorical variables. Finally, Students' T-test are utilized to compare black and white students on the interval level variables used in the regression analyses and to compare the faculty attitudinal/behavioral characteristics for faculty of black and white students. The chi-square analyses and Students' T-test illustrate the racial differences of students on the significant variables pointing out significant some factors which need to be addressed in efforts to achieve equality in the performance of black and white college students.

Findings

Table 1 illustrates the comparisons of overall progression rates and college grade point averages for black and white students. White students are found to have both faster progression rates and higher grade point averages than black students. White students progress at an average rate of 15.3 credit hours per term compared to 14.4 for black students.

Table 1

Students' T-tests Comparing Black and White Students

Overall College Progression Rates and College Grade Point Average

Mean for White Students	s.d.	Mean for Black Students	s.d.	t.	d.f.
Progression Rate	15.3	4.6	14.4	4.1	6.06* 3578
College Grade Point Average	4.2(B)	1.9	5.5(B-toC+)	1.8	-21.963805

*Significant at .001 level of significance using two-tailed Student's T-test.

1 Number identifying mean college grade point averages refer to the mean category numbers. The letter grade equivalent represented by those categories (as rounded off) are enclosed in parenthesis.

White students have an average grade point average equivalent to a B compared to a grade point average bordering B- to C+ for black students. The major question to be addressed in this paper is: what are the probable causes for the slower progression rates and lower grade point averages of black students which colleges and universities can address to bring about racial equality in students' performance?

Table 2 illustrates the separate regression analyses of the twenty nine student, faculty, and institutional characteristics predicting black and white students progression rates and Table 3 illustrates the same models with college grade point average as the

SUMMARY OF RESULTS FROM REGRE
STUDENT, FACULTY AND
FULL MODE

Black St

Independent Variables	B[1]	Beta
Student Characteristics		
SAT Score	.001	.038
Socioeconomic Status	-.058	-.013
Sex (0 = Female, 1 = Male)	.055	.006
Age	-.551	-.247
High School Grade Point Average	.368	.139
Marital Status (0 = Single, 1 = Married, Living Together)	1.85	.[illegible]
Type of High School Attended (0 = Public, 1 = Private)	.346	.025
# Hours Spent Working on a Job	-.310	-.116
Where Lived (0 = Private Home, Apartment, 1 = On-campus Housing)	.800	.095
Racial Minority Status (0 = Majority Status, 1 = Minority Status)	-1.22	-.135
Transfer Student (0 = Yes, 1 = No)	.469	.053
# Miles from Permanent Home	.439	.160
Fit Between Racial Composition of High School and College (0 = Different, 1 = Alike)	.287	.034
Fit Between Racial Composition of Home Neighborhood and College (0 = Different, 1 = Alike)	.270	.031
Highest Expected Degree (0 = Bachelor's or Less, 1 = Master's or More)	.168	.016
Whether Works While in School (0 = Yes, 1 = No)	-.125	-.014
Academic Integration	.055	.014
Financial Need	-.491	-.086
Commitment to Institution	-.376	-.084
Academic Motivation	.588	.118
Feelings of Discrimination	.312	.087
Social Integration	.021	.004
Interfering Problems	-.151	-.031
Faculty Characteristics		
Significant Contact with Students	-.246	-.035
Satisfaction with Institution	-.186	-.021
Conservative Teaching Style	1.87	.140
Feeling that Institution is Discriminatory	-.575	-.039
Concern for Student Development	.781	.074
Institutional Characteristics		
Total Enrollment	.00004	.113
Constant	15.39	
F (Equation)		14.02
R^2		.240

*Significant at .05 level (two-tailed).
**Significant at .01 level (two-tailed).

[1]Unstandardized regressi
[2]Standardized regression

TABLE 2

ESSION OF STUDENTS' PROGRESSION RATE ON
INSTITUTIONAL CHARACTERISTICS:
EL OF MAIN EFFECTS

udents		White Students		
^{2}	t	B[1]	Beta[2]	t
	1.24	.002	.076	2.38**
	-.51	-.228	-.046	-1.58
	.23	.030	.029	1.03
	-7.84**	-.467	-.199	-5.84**
	4.97**	.252	.099	3.3**
	4.41**	.424	.029	1.04
	.97	.062	.005	.203
	-3.29**	-.218	.075	-1.85
	2.97**	.410	.052	1.71
	-2.39**	-.652	-.586	-.55
	2.07*	.133	.017	.58
	5.56**	.316	.101	3.47**
	1.31	.666	.057	1.73
	1.10	-.068	-.005	-.153
	.63	.435	.052	1.91*
	-.445	-.021	-.002	-.07
	.350	.081	.019	.56
	-3.22**	-.389	-.083	-2.86**
	-2.50**	-.5?3	-.129	-3.51**
	3.99**	.207	.048	1.62
	2.18*	-.109	-.022	-.66
	.150	.421	.093	3.01**
	-1.08	-.273	-.058	-1.91*
	-.64	-1.23	-.077	-1.61
	-.48	-1.05	.136	-2.45**
	3.04**	1.01	.056	1.47
	-1.23	-.176	-.013	-.42
	1.69	2.41	.225	4.15**
	2.82**	.00006	.289	3.84**
		12.89		
			11.66	
			.216	

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criterion variable. These regression analyses reveal some similarities and some differences in the significant predictors of black and white students progression rates as well as their collegegrade point averages.

In order of their relative importance the fourteen significant predictors of progression rates for black students are age, number of miles college is from permanent home, faculty teaching style, high school grade point average, minority/majority racial status, marital status, academic motivation, number of hours spent working on a job while attending college, institutional enrollment, where student lives while attending college, students' feelings of discrimination, their financial need, their commitment to their university and their transfer status. For white students, the twelve significant predictors in order of relative importance are institutional enrollment, faculty concern for student development, age, faculty satisfaction, students' commitment to their university, number of miles from permanent home, high school grade point average, social integration, financial need, SAT scores, interfering problems, and degree aspirations.

For both black and white students, faster progression rates are found among younger students who attend larger universities, who attend college a further distance from home, have high high school grade point averages, are in the social majority on their campus, have low financial need, and low commitment to their university. The following seven characteristics contribute to faster progression rates for black students but not for white students: to have a faculty with non-traditional teaching style, be married, have high academic

motivation, work a low number of hours on a job, live in on-campus housing, have low feelings of discrimination and to not be a transfer student. The following six characteristics contribute to the faster progression rates of white students but not black students: to have a faculty with a high concern for student development, have faculty with low satisfaction for their university, have high social integration, high SAT scores, low interfering problems and high degree aspirations. The total model explains 24.0% of the variance in black students progression rates and 21.6% of the variance in white students progression rates.

Table 3 illustrates the regression analyses for black and white students using the same twenty-nine independent variables with grade point average as the criterion variable. The twelve significant predictors of black students college grade point averages in order of importance are: academic motivation, high school grade point average, academic integration, commitment to the institution, faculty contact with students outside the classroom, SAT scores, faculty conservative teaching styles, marital status, faculty satisfaction with the university, financial need, fit between the racial composition of students' high school and college and transer status. Seventeen variables are found to be significant predictors of white students' grade point averages. In order of importance these are: academic motivation, high school grade point averages, academic integration, SAT scores, students' commitment to their university, interfering problems, feelings of discrimination, faculty contact with students outside the classroom, social integration, where students live while attending college, degree aspirations, racial minority/majority

TABLE 3

SUMMARY OF RESULTS FROM REGRESSION OF ST
STUDENT, FACULTY AND INSTITUTIONA
FULL MODEL OF MAIN EF

Black Stu

Independent Variables	B[1]	Beta[2]
Student Characteristics		
SAT Score	.001	.140
Socioeconomic Status	.023	.013
Sex (0 = Female, 1 = Male)	-.038	-.010
Age	.012	.013
High School Grade Point Average	.296	.265
Marital Status (0 = Single, 1 = Married, Living Together)	.659	.101
Type of High School Attended (0 = Public, 1 = Private)	.231	.040
# Hours Spent Working on a Job	-.004	-.004
Where Lived (0 = Private Home, Apartment, 1 = On-campus Housing)	.172	.048
Racial Minority Status (0 = Majority Status, 1 = Minority Status)	.323	.084
Transfer Student (0 = Yes, 1 = No)	.235	.063
# Miles from Permanent Home	.036	.032
Fit Between Racial Composition of High School and College (0 = Different, 1 = Alike)	.227	.063
Fit Between Racial Composition of Home Neighborhood and College (0 = Different, 1 = Alike)	.157	.043
Highest Expected Degree (0 = Bachelor's or Less, 1 = Master's or More)	.125	.029
Whether Works While in School (0 = Yes, 1 = No)	-.024	-.006
Academic Integration	.435	.252
Financial Need	-.184	-.076
Commitment to Institution	-.372	-.198
Academic Motivation	.565	.268
Feelings of Discrimination	-.071	-.046
Social Integration	-.041	-.021
Interfering Problems	.044	.022
Faculty Characteristics		
Significant Contact with Students	.556	.188
Satisfaction with Institution	.317	.084
Conservative Teaching Style	-.604	-.106
Feeling that Institution is Discriminatory	.018	.002
Concern for Student Development	-.159	-.036
Institutional Characteristics		
Total Enrollment	-.000002	-.019
Constant	6.31	
F (Equation)		23.59
R^2		.347

[1] Unstandardized regression coefficient.
[2] Standardized regression coefficient.

*Significant at .05 lev
**Significant at .01 lev

DENTS' COLLEGE GRADE POINT AVERAGES
L CHARACTERISTICS:
FECTS

lents		White Students	
t	B[1]	Beta[2]	t
4.96**	.002	.193	7.11**
.53	.001	.000	.03
-.42	-.246	.064	-2.64**
.45	.037	.033	1.13
10.16**	.340	.275	10.65**
3.98**	.203	.029	1.19
1.65	.332	.059	2.59**
-.123	-.025	-.018	-.52
1.62	-.253	-.065	-2.53**
1.61	1.162	.069	2.32*
2.63**	.162	.041	1.72
1.18	.088	.058	2.32
2.62**	.120	.021	.75
1.62	-.291	-.046	-1.59
1.20	.284	-.070	2.98**
-.213	-.153	-.039	-1.18
7.01**	.436	.210	7.26**
-3.06**	-.146	-.063	-2.58**
-6.30**	-.400	-.179	-5.71**
9.75**	-.724	-.341	13.46**
-1.24	.242	.098	3.63**
-.80	-.200	-.090	-3.43**
.78	-.260	-.113	-4.34**
3.69**	.766	.090	2.39**
2.10*	.138	.037	.77
-2.48**	-.566	-.064	-1.97*
.09	.234	.035	1.34
-.88	-.149	-.029	-.62
-.50	-.000006	.06	-1.62
	6.37		
		31.15	
		.424	

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el (two-tailed).

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status, students' sex, faculty teaching style, financial need, type ofhigh school attended, and number of miles college is from students' permanent home.

Most of the significant predictors of college grade point averages are the same for both black and white students but there are some differences. The common characteristics of both black and white students with relatively high grade point averages are: to be highly academically motivated, have high high school grade point averages, have high academic integration, low commitment to the university, have high SAT scores, have high degree of contact with faculty outside the classroom, have high faculty with non-traditional teaching styles, and have low financial need. The four significant characteristics of black students with higher grades that are not significant for white students are: to be married, have faculty that is satisfied with their university, to attend a college with similar racial composition as their high school, and to be a non-transfer student. The nine characteristics of white students with relatively high college grade point averages which are not significant for black students are: to have relatively few intefering problems, attend a university where there is high feelings of discrimination, to have low social integration, live in on-campus housing, have higher degree aspirations, be in the racial majority status on campus, be female, having attended a private high school and attend college a relatively great distance from home. The regression model utilized is better suited for predicting white students grade point averages, explaining 42.4% of the variance compared to 34.7% for black students.

The findings of the regression analyses may assist universities in addressing the problem of slower progression rates and lower college grade point averagess of black students by identifying those characteristics related to higher performance. However, in order to determine the need for specific matters to target university efforts, comparisons of black and white students on significant variables are needed to determine the areas in need of improvements.

In other words, black students may already be equal or even superior to white students on some significant variables; therefore requireing no special attention. Tables 4 to 6 provide comparisons of black and white students on all the student characteristics included in the regression analyses as well as comparisons of the attitudinal/behavioral characteristics of the faculty of black students compared to the faculty of white students. Table 4 provides the results of chi-square analyses on the categorical variables; Table 5 provides the comparisons of black and white students on the interval level attitudinal/behavioral characteristics using Student's T-tests; and in Table 6, students' T-tests are used to compare black and white students on some interval level pre-college characteristics.

Table 4 illustrates the chi-square comparisons of black and white students racial minority/majority status, sex, type of high school attended, degree aspirations, where they live while attending college, whether they work while attending college and if so whether they work on or off campus,their marital status. All of these factors are found to have some significant predictive value in students' progression rates and/or grade point average. Table 4 shows that black and white students differ on each of the categorical variables. In general,

CHI-SQUARE ANALYSES COM

Dependent Variable	Perce Black
Racial Status	
Majority group	45.3
Minority group	54.7
Sex	
Female	62.7
Male	37.3
Type of High School	
Public	89.8
Private	10.2
Degree Aspirations	
Baccalaureate or less	21.6
More than Baccalaureate	78.3
Where They Live	
Campus student housing	65.9
Private housing	34.1
Work	
On campus	41.4
Off campus	24.3
Do not work	34.3
Transfer Status	
Never taken courses elsewhere	64.5
Taken courses elsewhere	35.5
Marital Status	
Single	93.6
Married or living together	6.4

**Significant at the .001 level

TABLE 4

MPARING BLACK AND WHITE STUDENTS

ntage for Students	Percentage for White Students	Chi-Square	d.f.
(1005)	87.7 (1646)	801.66**	1
(1213)	12.3 (230)		
(1368)	49.7 (919)	69.12**	1
(813)	50.3 (930)		
(1972)	83.4 (1544)	36.43**	1
(233)	16.6 (307)		
(473)	34.8 (647)	102.19**	5
(1712)	65.2 (1211)		
(1444)	54.0 (1005)	150.78**	2
(748)	46.0 (846)		
(897)	25.8 (469)	106.39**	2
(526)	31.3 (568)		
(742)	42.8 (777)		
(1413)	54.9 (1021)	39.12**	1
(777)	45.1 (840)		
(2044)	85.0 (1556)	81.49**	3
(140)	15.0 (275)		

white college students areoverwhelmingly more likely to be in the racial majority in college whereas black students are more likely to be in the racial minority; white students are more likely to have an equal (50:50) sex distribution whereas black students are more likely to be represented by a higher percentage of females; a significantly larger percentage of white students have attended private high schools; a significantly larger percentage of black students have higher degree aspirations; a larger percentage of black students live in on-campus housing; a greater percentage of black students work while attending college and the percentage of those who work, work on campus while the largest percentage of white working students work off-campus; a significantly larger percentage of white students are transfer students; and a significantly larger percentage of white students are married.

Of the seven categorical variables, five are significant predictors of black students progression rates and two are significant predictors of their grade point average; but only three of these variables — working while attending college, being in the racial minority group and being single — would black students appear to be negatively affected according to the comparisons in Table 4. The remaining two significant variables — living in on-campus housing and being a transfer student — are variables upon which black students compare favorably and would appear from the regressionanalyses to be supportive of their progression rates and college grade point average.

For white students, none of the categorical variables are significant predictors of their progression rates, but three — living in on-campus housing, being in the majority racial group, and being

female — are all associated with higher grade point averages. The greater tendency of white students to be in the majority racial group may provide a clear advantage to their grade point averages. On the other hand, the lesser tendency for white students than black students to live on campus and to be female would appear not to contribute to their grade point averages advantage. These findings suggest that the major differences in the performance of black and white students may more likely be explained by their differences in the attitudinal/behavioral characteristics and their pre-college characteristics.

In Table 5, Students' T-tests are used to compare black and white students attitudinal/behavioral characteristics revealing some important racial differences in some variables shown earlier to be significant predictors of progression rates and college grade point averages. It is especially significant since all the variables in Table 5 with the exception of socioeconomic status are significant predictors of students' progression rats and college grade point averages.

Table 5 illustrates that white students are significantly more academically integrated, have significantly higher high school grade point averages and higher SAT scores than black students, and all of these contribute favorably to their college grade point averages. White students are also found to have significantly greater commitment to their university and greater socioeconomic status; however, greater commitment to the university is discovered to have a negative impact upon both progression rates and college grade point averages and socioeconomic status has no significant impact upon students

TABLE 5

STUDENT'S T-TESTS COMPARING BLACK AND WHITE COLLEGE STUDENTS

Dependent Variable	Mean for White Students	s.d.	Mean for Black Students	s.d.	t	d.f.
Academic Integration	.163	.943	.021	1.044	3.81**	2822
Financial Need	-.120	.801	.289	.757	-13.98**	2807
Commitment to the Institution	-.142	.950	-.386	.922	-6.93**	2833
Academic Motivation	.042	.923	.028	.875	-.40	2808
Feelings of Discrimination	.015	.861	.647	1.275	-15.52**	2546
Social Integration	.032	.884	.295	.920	-7.74**	2833
Interfering Problems	-.015	.806	.203	.901	-6.80**	2819
High School Grade Point Average	2.9[1] (B+)	1.7	3.5[1] (B to B+)	1.6	-10.55**	3882
SES	.064	.845	-.897	1.000	27.69**	2788
Age	4.1[1] (21)	2.0	4.0[1] (21)	1.8	1.18	3826
Composite SAT Score	1056.8	178.6	853.2	156.6	38.44**	3760

*Significant at .01 level of significance using two-tailed Student's t-test.
**Significant at .001 level of significance using two-tailed Student's t-test.

[1]Numbers refer to the mean category numbers. The values represented by those categories (as rounded off) are enclosed in parentheses.

progression rates nor their grade point averages. White students are shown to have significantly lower financial need, lower social integration, and fewer interfering problems, all of which contribute to their performance.

Table 5 shows that black students have significantly greater financial need, greater feelings of discrimination, lower academic integration, a greater number of interfering problems, lower SAT scores, and lower high school grade point averages, all of which have a negative impact upon their performance. They also have lower commitment to their university and lower socioeconomic status but lower commitment is found to be positively related to their college performance and socioeconomic status has no significant influence upon black students performance.

Comparisons of two variables in Table 5 reveal no significant difference between black students and white students. These are age and academic motivation. Age (younger students) is found to be a significant predictor of both black and white students' progression rates and academic motivation (high academic motivation) is a significant predictor of black students progression rates and their college grade point average but only white students college grade point average. Since there are no significant racial differences in age and academic motivation black students would not appear to be placed in a disadvantageous position regarding their college performance because of these two variables.

Thus far, several racial differences in student characteristics have been identified and examined which explain in part the slower progression rates and lower college grade point averages. Some

faculty attitudinal and behavioral characteristics were also identified which play a significant role in students' performance. Table 6 illustrates the significant differences in the faculty attitudinal/behavioral characteristics of the faculties of black and white students. Table 6 shows that white students are more likely to have faculty with greater contact with students, greater satisfaction with their university, more conservative teaching style, and greater feelings of discrimination. Black students are more likely to have faculty with a greater concern for student development.

Faculty teaching style is the only faculty factor that is a significant predictor of black students progression rates, with non-conservative teaching styles contributing to faster progression of black students. On the other hand, high faculty concern for student development and high faculty satisfaction for the university are significant contributors to faster progression rates of white students. Since black students are found to be more likely to encounter faculty with non-traditional teaching styles, faculty teaching styles is not likely to explain the slower progression rates of black students. Similarly, for white students, high concern for student development and low faculty satisfaction contribute to faster progression rates, yet Table 6 shows that white students are less likely to experience faculty with high concern for student development and more likely to experience faculty with high satisfaction; thus these faculty factors do not explain the faster progression rates of white students.

Three of the faculty attitudinal/behavioral characteristics are significant preditors of black students' college grade point averages

TABLE

STUDENT'S T-TEST COMPARING THE FACULTY ATTI

Factor	Mean for Black Students	s.d.
Faculty significant contact with students	w-.237	.547
Faculty satisfaction with their university	w-.318	.526
Faculty conservative teaching style	w-.201	.335
Faculty feelings of discrimination	w-.063	.289
Faculty concern for student development	b .198	.406

**Significant at the .001 level using two tailed T-test

E 6

TUDES OF BIACK AND WHITE COLLEGE STUDENTS

Mean for White Students	s.d.	t	d.f.
.008	.381	-16.76**	3951
-.107	.526	12.93**	4005
-.018	.317	18.10**	4041
-.031	.319	3.29**	3826
.061	.414	10.62**	3953

and two are significant predictors of white students college grade point averages. For black students, high faculty contact outside the classroom, nonconservative teaching styles, and faculty with a high degree of satisfaction contribute to higher college grade point averages. Table 6 shows that black students are less likely than white students to experience faculty with a high degree of contact with students outside the classroom; are less likely than white students to have faculty with nonconservative teaching styles; and are less likely to have highly satisfied faculty members.

White students with higher grades are predicted to have a faculty with a higher level of contact with students outside the classroom and faculty with nonconservative teaching styles. Table 6 shows that white students are more likely than black students to have faculty with conservative teaching styles. Thus, while the faculty contact is supportive of white students' grade point averages, conservative teaching style does not appear to explain the relatively higher grade point averages for white students. One would be likely to draw two conclusions from these analyses that are important in desegregation efforts. First, faculty attitudes and behaviors do not appear to be afactor in the progression rate differences of black and white students, but do appear to be important in the grade point average differences. Second, efforts by universities to provide greater faculty contact, and a more satisfied faculty would probably contribute to black students college grade point averages.

Conclusion

The slower college progression rates and lower college grade point averages of black students represent important qualitative

challenges in the higher education desegregation process. Several student and faculty characteristics have been identified in this paper that are significant predictors of the performance of black and white students and would appear to assist colleges and universities to address the racial differences in students' performance. In terms of progression rates, wherein black students average 14.4 credit hours per term compared to 15.3 for white students, universities would benefit from efforts aimed at black students' feelings of discrimination, their racial minority status, their employment patterns while attending the university, and the high school preparation. Although there are nine additional predictors of black students college progression rates, these four represent matters are where black students are discovered to be significantly disadvantaged.

Generally, universities should explore methods to reduce the negative effects that accrue to black students from being in the racial minority group on campus and their feelings of discrimination. This is especially significant since the majority of black college students are now found to attend universities where they are in the racial minority group and as quantitative desegregation progresses, this trend is likely to continue. The feelings of discrimination factor consists of a combination of perceptions students have about their universities which should be addressed by universities. These include students feelings that the university's faculty and administration discriminates against students of their own race, and that the university in general is racially discriminatory.

Although it is considered normal behavior for students to work part-time to support their college education, the greater number of

hours black students work while attending college appears to have a negative impact upon their progression rates. It was illustrated in Table 4 that a greater need of black students to pay their own college expenses, which is a practical matter of importance, it represents the need for university financial aid programs and their academic advising programs to consider adjusting the number of hours students work in order to promote faster progression rates.

The high school preparation of black students is outside the purview of university personnel except as the faculty prepares students to teach in elementary and secondary schools or otherwise interface with faculty and administrators at the pre-collegiate levels. However, because of the need in the desegregation process to provide better preparation to prospective black college students, there is a greater need for universities to establish greater partnerships with secondary schools. Such partnerships may include emphasis upon curriculum development and developing teaching/learnikng techniques geared toward university preparation. The better preparation of blackhigh school students will contribute to the overall performance of black college students.

As for the college grade point averages of black students, which are found tobe significantly lower than those of white students, several matters are identified in Tables 4 through 6 that would be beneficial for universities to address in the desegregation process. Specifically, greater attention should be given to the following significant predictors: high school preparation of black students as revealed by their lower high school grade point averages and SAT scores; the academic integration of black students; faculty contact

with students outside the classroom; faculty satisfaction with their university; financial need of black students; and the fit between the racial composition of their high school and college. Black students have lower high school grades, lower SAT scores, lower academic integration, less contact with faculty outside the classroom, have faculty with relatively low satisfaction with their university, they have greater financial need and are less likely to attend a university with a similar racial composition as their high school. High school preparation, financial need and faculty contact have all been discussed in relationship with progression rates and that same position of the need for greater high school preparation, financial assistance, and contact between faculty and students also applies to improving black students' college grade point averages. It is important for universities to understand the effects of faculty satisfaction and the fit between the racial composition of high schools and colleges. Academic integration is a factor which includes students' satisfaction with their relationship with faculty; their feelings that the faculty of the university is sensitive to the interests, needs, and aspirations of students; the ease at which students feel they can develop close personal relationships with faculty members on campus; the perception of students that their faculty are good teachers; and the students' satisfaction with the quality of instruction at their university. Using this factor, black students are less academically integrated than white students.

Faculty satisfaction with the university is a factor which includes faculty's satisfaction with the quality of research by faculty on their campus, their satisfaction with the resources for

faculty to conduct research, the opportunity for faculty to experience personal growth at their university, their satisfaction with opportunities for career advancement at their institution, and their rating of the academic reputation of their university. Black students are found to have comparatively less satisfied faculty than white students and greater satisfaction would contribute to higher college grade point averages for black students.

The fit between racial composition of black students' high school and college contributes to their college grade point average. Greater desegregation at the high school level is likely to contribute to the academic performance of black students attending desegregated universities. While this is not a matter to be addressed by universities, it provides support for public policy-makers and Federal courtss to justification of greater desegregation at the elementary and secondary school levels.

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